

"Express Mail" mailing label number: **EL371529720US** Date of Deposit: **Jan. 28, 2000**
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION FOR LETTERS PATENT
(UTILITY PATENT)

APPLICANTS: Christopher Evans
Richard Evans

POST OFFICE ADDRESS: 32 Hamilton Road, Unit 108
Arlington, MA 02474

INVENTION TITLE: Apparatus and Method for Soccer Training and Practice

ASSTGNEE:

ATTORNEYS:

Jerry Cohen (Reg. No. 20,522)

Edwin H. Paul (Req. No. 31,405)

Harvey Kave* (Req. No. 18,978)

Stephen Y. Chow (Reg. No. 31,338)

Stephen P. Chow (1113) . . .
Christine M. Kuta. (Reg. No. 38,0

Christine M. Rada, (Reg. No. 24,338),
Jacob N. Erlich (Reg. No. 24,338)

Dr. Chester A. Bisbee

(Reg. No. 44,538)

AGENT:

Dr. Lei Fang (Req. No. 44,676)

Perkins, Smith & Cohen

One Beacon Street

Boston, Massachusetts 02108

BOSCH, Hassane
(617) 854-4000

* Mr. Kave is available at 301-948-5535

TO: Honorable Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

Your applicant(s), named above hereby petition(s) for grant of a utility patent to him(them) or any assignee(s) of record, at the time of issuance, for an invention more particularly described in the following specification and claims, with the accompanying drawings, verified by the accompanying Declaration and entitled:

"Express Mail" mailing label number: EL377529720US Date of Deposit: Jan. 28, 2000

Apparatus and Method for Soccer Training and Practice

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation-in-part of U.S. patent application Serial No. 09/162,976 entitled, "Apparatus and Method for Soccer Training and Practice" filed September 5 29, 1998 by the present applicants.

FIELD OF THE INVENTION

This invention relates generally to ball sports devices and more particularly to a soccer practice device having a tethered ball.

BACKGROUND OF THE INVENTION

Soccer is a team sport and serious players practice long hours with a team. When an individual player wishes to practice on his or her own, difficulty arises. The part of the game which involves kicking the ball a distance from the player, for example shots on goal, creates a ball retrieval problem.

A device to facilitate soccer practice for a single player which returns the soccer ball to the player after it is kicked has obvious benefits. Two such devices are disclosed in U.S. Pat. Nos. 5,620,186 and 4,147,353. Both devices, however, have shortcomings in the anchoring means and the ball holding means. Both the '186 and the '353 devices use a "tent stake" means for anchoring the device.

Anchoring by means of a simple tent stake in the ground might be suitable for young children, but not for stronger players.

It is possible for a high school, college or professional player to dislodge an ordinary "tent" stake with a few

5 powerful kicks. This makes these soccer practice devices
ineffective, and also potentially dangerous. Further, the
prior art devices lack freedom of movement of the ball's
tether around the stake. The tether in the prior art devices
wraps around the "tent stake" anchoring means and prohibits
10 the free movement of the ball around and over the anchoring
means. This lack of freedom of movement of the ball also
inhibits the ball from rolling back to the player freely,
smoothly and without the tangling of the tether cord.

The problems in the ball holding means are also

15 significant. To a soccer player, the feel of the ball when kicking is an important element of feedback and a vital aspect of training and practice. Existing prior art devices use straps, sewn overlapping fastenings, metal rings or Velcro closings to hold the ball. All of these coverings on 20 the ball cause an uneven, bumpy feel upon kicking the ball and impede the rolling of the ball when it returns to the player.

It remains desirable to have a soccer practice device for strong players which approximates normal game play.

25 It is an object of the present invention to provide a
method and apparatus to firmly and securely anchor a tethered
soccer ball.

It is another object of the present invention to provide a method and apparatus to tether a soccer ball to an anchor such that the tether does not become entangled with the anchor during play.

5 It is another object of the present invention to provide a method and apparatus to hold a soccer ball in a practice device such that the ball retains the feel of a ball in normal soccer play.

10 **SUMMARY OF THE INVENTION**

The problems of anchoring a tether and holding a soccer ball are solved by the present invention of soccer practice device having a stable anchoring means, and a tethering means that resists tangling and which allows the ball to roll smoothly.

15 The present invention is an apparatus for holding and retrieving a soccer ball including an anchoring means which consists of a spiral tie down stake. A circular upper portion of the tie down stake holds a ring. A detachable link attaches one end of a tether cord to the ring. At the 20 other end of the tether cord, a net holds a soccer ball. The detachable link has a swivel-eyebolt connection that allows a 360° spin for the ball.

25 The circular upper portion, ring, and swivel-eyebolt on the detachable link allow the soccer ball great freedom of movement thus simulating real soccer play.

The present invention together with the above and other advantages may best be understood from the following detailed description of the embodiments of the invention illustrated in the drawings, wherein:

5

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of a first preferred embodiment of a ball anchoring means according to principles 10 of the invention;

Figure 2 is a perspective view of the tie down stake, the rotating ring, the rotating loop and the detachable link of Figure 1;

15 Figure 3 is a perspective view of the tether and detachable link of Figure 1;

Figure 4 is a perspective view of the net holding the soccer ball of Figure 1;

20 Figure 5 is a perspective view of a second preferred embodiment of a ball anchoring means according to principles of the invention;

Figure 6 is a perspective view of a third preferred embodiment of a ball anchoring means according to principles of the invention; and

25 Figure 7 is a side view of the anchoring means of Figure 6.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Figure 1 is shows a first embodiment of a soccer practice device 10 according to the principles of the present invention. The first embodiment of the soccer practice device 10 has a spiral tie down stake 15 which has a spiraled lower portion 20, which, in use, is inserted into the ground. The upper portion 25 of the stake is bent into a triangular shape forming a handle for pushing the stake 15 in and pulling the stake 15 out of the ground. A lower stop 30 and an upper stop 35 are positioned on the stake 15 between the handle 25 and the spiraled lower portion 20. The stake 15 has a rotating loop 40 which is attached to the stake 15 by means of a pin 45 and a rotating ring 50. The rotating ring 50 is held in place along the length of the stake by the lower 30 and upper 35 stops. A detachable link 55 is attached to the rotating loop 40 by a clasp 60 which releases with a thumb spring mechanism 65. The detachable link 55 also has a swivel-eyebolt 70. The swivel-eyebolt 70 holds one end of a tether 75, which in the present embodiment, is an elastic cord. The other end of the tether 75 holds a drawstring 80 for a net 85 which holds a soccer ball 90. In the present embodiment, the elastic cord tether 75 has clamped loops on both ends for attachment to the swivel-eyebolt 70 and the drawstring 80, but other attachment means are possible.

In operation, the tie down stake 15 anchors the tethered soccer ball 90. The ball 90 may be kicked about by the user

without tangling the tether 75 because of the freedom of movement of the ball 90 in relation to the stake 15 as will be described below.

Figure 2 shows the tie down stake 15, the rotating ring 50, the rotating loop 40 and the detachable link 55 with indicators showing the freedom of movement of the various components. The rotating ring 50 and rotating loop 40 form a rotating tether cord attachment means which provide the soccer ball with the freedom of movement to simulate realistic soccer ball play. The detachable link 55 with the swivel-eye bolt 70 provides even more freedom of movement. The rotating ring 50 rotates around the stake 15 with 360° freedom of movement. The rotating loop 40 rotates around the pin 45 with 360° freedom of movement. The swivel-eyebolt 70 rotates around the axis of the detachable link 55 with 360° freedom of movement. The rotational freedom of movement of the ring 50, the loop 40, and the swivel-eye bolt 70 allows the soccer ball 90 tethered to the stake 15 to spin and roll with a minimum of tangling of the tether 75.

Figure 3 shows the tether 75 with clamped loops at both ends. One end of the tether 75 is connected to the swivel-eyebolt 70 of the detachable link 55. The swivel-eyebolt 70 allows 360° rotation about the axis of the detachable link 55. The tether 75 is removable from the stake 15 so that cords of various lengths and degrees of elasticity may be attached to the stake 15. This allows players with different skill levels to be accommodated and enables different techniques to

be practiced such as indirect and direct kicks, penalty kicks, corner kicks, goal kicks, throw-ins, and trapping. In addition, by being removable, worn tethers may be easily replaced.

5 Figure 4 shows the soccer ball 90 enclosed in the net
85. The net 85 may be made of nylon or some other strong,
flexible material. Because of the adjustability of the net
85 with the drawstring 80, the net 85 can accommodate various
sizes of soccer balls. After the soccer ball 90 is inserted
10 into net 85, the drawstring 80 is drawn snug and tied off and
then attached to the tether 75.

Figure 5 shows a second alternative embodiment of the soccer practice device according to principles of the present invention. The second alternative embodiment has a weighted base 100 and a connection element 110 to anchor the soccer ball 90. The detachable link 55 attaches to the base 100 by means of the connection element 110. The ball is tethered as before with the elastic tether 75 and the net 85. The weighted base 100 shown is cylindrically-shaped with tapered sides, but other shapes may be used. Also, the weighted base 100 may be of various sizes, for instance sized according to the strength and skill levels of the anticipated users. The weighted base 100 may be made of plastic or metal. The weighted base 100 is hollow and may be filled through the filling opening 115 by sand or some other dense filling material.

Figures 6 and 7 show a third alternative embodiment of the soccer practice device according to principles of the present invention. The third alternative embodiment has a tie down stake which has a spiraled lower portion 120, which in use, is inserted into the ground. The upper portion of the stake is formed into a circular holder 125 that holds a ring 130 which is free to travel along a substantial portion of the circular upper portion of the stake. A handle 135 projects from the tie down stake below the circular holder 125. In operation, the spiraled lower portion is inserted into the ground 140, and a tether is attached to the ring 130 by for example the detachable link 55 shown in Figure 1. The circular holder 125, ring 130, and rotating detachable link 55 provide a high degree of freedom of movement for the soccer ball and simulate the motion of the ball in free play.

The tie down stake and handle as shown in Figures 6 and 7 are made of one piece of material spiraled and turned to form this embodiment of the soccer practice device.

Alternatively, the device could be formed of a plurality of pieces. For example, the lower portion, upper portion and handle could be manufactured as separate pieces which are then assembled to form the soccer practice device. Other manufacturing and assembly configurations are possible within the scope of the invention.

The present invention allows a serious player of any ability to go out to a soccer field or back yard on his or her own and get in an intensive practice on a particular

skill, at his or her own pace in an efficient manner. Further, the device is of simple construction of durable individual parts capable of being quickly exchanged to allow for the practice of a variety of techniques by players at 5 different skill levels, as well as enabling any worn part to be readily replaced.

It is to be understood that the above-described embodiments are simply illustrative of the principles of the invention. Various and other modifications and changes may 10 be made by those skilled in the art which will embody the principles of the invention and fall within the spirit and scope thereof.

0000000000